ROZHKOV, Ye., inzh.

Maneuver in space; does a spaceship need wings? Av. i kosm. 46 no.12:36-42 D '63. (MIRA 17:1)

ROSHKOV, Ye., inzhener-mayor

Into space from an airplane. Av. i kosm. 47 no.7:15-18 Jl '64.
(MIRA 17:7)

ROZHKOV, E. L.

TROFIMUK, A.A., akademik

"Gas fields in the U.S.S.R." by K.A.Belov and others. Reviewed by A.A.Trofimuk. Geol.nefti gaza 6 no.4:61-63 Ap '62. (MIRA 15:4)

(Gas, Natural—Geology) (Belov, K.A.) (Vasil'ev, V.G.) (Elin, N.D.) (Erofeev, N.S.) (Korotkov, S.T.) (L'vov, M.S.) (Mironchev, IU.P.) (Muratova, A.T.) (Rozhkov, E.L.)

ROZHKOV, Y.M.

"Application of Spectrum Analysis at the Chussovski Metallurgic Plant," Iz. Ak. Nauk SSSR Ser. Fiz., No. 6, 1945.

CHUVATOV, V.V.; BEREZIN, N.N.; METSGER, E.Kh.; NAGIN, V.A.; KARTASHOV, N.A., kand. tekhn. nauk, dots.; MIL'KOV, N.V., kand. tekhn. nauk; BYCHKOV, M.I., kand. tekhn.nauk, dots.; SUKHANOV, V.P., SHLYAPIN, V.A.; KORZHENKO, L.I.; ABRAMYCHEV, Ye.P.; KAZANTSEV, I.I.; YARES'KO, V.F.; LUKOYANOV, Yu.N.; DUDAROV, V.K.; BALINSKIY, R.P.; KOROTKOVSKIY, A.E.; PONOMAREV, I.I.; NOVOSEL'SKIY, S.A., kand. tekhn.nauk, dots.; IL'INYKH, N.Z.; TSITKIN, N.A.; ROGOZHIN, G.I.; PRAVOTOROV, B.A.; ORLOV, V.D.; RACHINSKIY, M.N.; KULTYSHEV, V.N.; SMAGIN, G.N.; KUZNETSOV, V.D.; MACHERET, I.G.; SHEGAL, A.V.; GALASHOV, F.K.; ANTIPIN, A.A.; SHALAKHIN, K.S.; RASCHEKTAYEV, I.M.; TISHCHENKO, Ye.I.; FOTIYEV, A.F.; IPPOLITOV, M.F.; DOROSINSKIY, G.P.; ROZHKOV, Ye.P.; RYUMIN, N.T.; AYZENBERG, S.L.; GOLUBTSOV, N.I.; VUS-VONSOVICH, I.K., inzh., retsenzent; GOLOVKIN, A.M., inzh., retsenzent; GUSELETOV, A.I., inzh., retsenzent; KALUGIN, N.I., inzh., retsenzent; KRAMINSKIY, I.S., inzh., retsenzent; MAYLE, O.Ya., inzh., retsenzent; OZERSKIY, S.M., inzh., retsenzent; SKOBLO, Ya.A., dots., retsenzent; SPERANSKIY, B.A., kand. tekhn. nauk, retsenzent; SHALAMOV, K.Ye., inzh., retsenzent; VOYNICH, N.F., inzh., red.; GETLING, Yu., red.; CHERNIKHOV, Ya., tekhn. red.

[Construction handbook] Spravochnik stroitelia. Red.kollegiia: M.I. Bychkov i dr. Sverdlovsk, Sverdlovskoe knizhnoe izd-vo. Vol.1. 1962. 532 p. Vol.2. 1963. 462 p. (MIRA 16:5)
(Construction industry)

VASIL'KOVA, Nina Nikitichna; SOLOMKINA, Sof'ya Grigor'yevna; ROZHKOV, Ye.V., nauchn. red.; KROTOVA, I.Ye., ved. red.

[Typomorphic characteristics of fluorite and quartz; based on the study of their physical and physicochemical properties] Tipomorfnye osobennosti fliuorita i kvartsa; na osnovanii izucheniia ikh fizicheskikh i fiziko-khimicheskikh svoistv. Moskva, Nedra, 1965. 132 p.
(MIRA 18:12)

ABARINOV, Andrey Andreyevich, prof.; PETROV, Vasiliy Petrovich, inzh.; ROZHKOV, Yevgeniy Yegorovich, inzh.; CHESNOKOV, A.S., kand. tekhn. nauk, nauchnyy red.; SHIROKOVA, G.M., red. izd-va; MIKHEYEV, A.A., tekhn. red.

[Technology of manufacturing the elements of steel structures] Tekhnologiia izgotovleniia stal'nykh konstruktsii. Moskva, Gosstroiizdat, 1963. 306 p. (MIRA 16:7)
(Building, Iron and steel)

L 13817-63 BDS

ACCESSION NR: AP3004655 S/0286/63/000/006/0038/0038

49

AUTHOR: Rozhkov, Yu. A.; Lisenkov, Ye. M.; Kiselev, A. S.

TITLE: Flowmeter for small flow rates of liquid. Class 42, No. 153581

SOURCE: Byul. izobret. i tovarny*kh znakov, no. 6, 1963, 38

TOPIC TAGS: flowmeter, liquid flow measurement, mass flow rate measurement, small flow rate

ABSTRACT: The flowmeter[10] is based on the measurement of the velocity of passing air bubbles in a measuring chamber equipped with electrodes connected with the measuring circuit. In order to measure the mass flow rate of a liquid with automatic correction for its variable density, a V-shaped tube is connected to the lower part of the measuring chamber. The tube, equipped with two additional electrodes, which are also connected with the measuring circuit, acts as a density meter through which air bubbles are released into the measuring chamber. Orig. art. has: 1 figure.

ASSOCIATION: none

Card 1/2/

LABUTIN, A.L., kand.tekhn.nauk; ROZHKOV, Yu.P., inzh.

Metal corrosion in rosin medium at high temperatures. Khim. mashinostr. no.6:26 N-D '63. (MIRA 17:2)

ACCESSION NR: AP4040512 S/0303/64/000/003/0003/0008

AUTHOR: Frost, A. M.; Rozhkov, Yu. P.

TITLE: Study of the compatibility of film-forming polymers and resins

SOURCE: Lakokrasochny*ye materialy* i ikh primeneniye, no. 3, 1964, 3-8

TOPIC TAGS: chlorinated polymer, nitrile rubber, nairit, butyl rubber, rubber compatibility, rubber softening, rubber phase reversal, carboxylated rubber, polychloroprene rubber, ethylene propylene rubber

ABSTRACT: The object of the work was to study the properties of various binary systems based on chlorinated polymers and various rubber, for the purpose of determining their compatibility and selecting compositions possessing optimum properties and suitable for the production of paint and varnish coatings. In the case of nitrile rubbers, it was found that a true blending of the components with the formation of a homogeneous phase is observed within a narrow range of rubber concentrations. It is postulated that because of the presence of large substituents of like charges in the chains of the compatible polymers and because of the flexibility of the rubber molecules, softening takes place owing to an

Card 1/3

ACCESSION NR: AP4040512

increase in the entropy of the system at a rubber content up to 15 wt. %. As the rubber content increases, the interaction between chloring atoms and the CN groups of rubber becomes appreciable and causes the formation of a microheterogeneous disperse system. At some ratio of the components, phase reversal takes place, and the system transforms into a macroheterogeneous one. It was shown that compositions with carboxylated rubber have properties similar to those of SKN-26 rubber only when the rubber content is moderate; when it is high, the components interact with the participation of carboxyl groups. Compositions based on chlorinated polymers and polychloroprene rubber showed that the presence of like substituents in the polymer and rubber causes the entropy factor to predominate during their blending. When chlorinated polymers were blended with nairit, heterogeneous systems consisting of dispersions of rubber in polymer or of polymer in rubber were obtained. The region of phase reversal corresponds to the region of maximum lamination of the components. It was found that nonpolar rubbers (butyl and ethylene-propylene rubber) do not blend with chlorinated polymers. On the basis of an analysis of the properties of various compositions of chlorinated polymers with various rubbers, binary compositions possessing optimum properties are recommended for use in paint and varnish production.

ASSOCIATION: none

Card 2/3

L 1877-66 EWT(m)/EPF(c)/EWP(j) RM

ACCESSION NR: AP5022509 UR/0303/65/000/004/0019/0022
667.621.64

AUTHOR: Rozhkov, Yu. P.; Frost, A. M.

TITLE: Effect of the properties of nitrile rubbers on their compatibility with perchlorovinyl resin

SOURCE: Lakokrasochnyye materialy i ikh primeneniye, no. 4, 1965, 19-22

TOPIC TAGS: nitrile rubber, polymer structure, resin

ABSTRACT: The effect of the properties of nitrile rubbers (SKN-18, SKN-26, SKN-40) on the physicomechanical characteristics and water resistance of two-component compositions based on the perchlorovinyl resin was investigated. The plasticizing effect of the rubber depends on the degree of polarity, which is determined by the content of nitrile groups. The compatibility of the rubber with the perchlorovinyl resin increases with the content of nitrile groups in the rubber. In its effect on the properties of the compositions, SKH-18 rubber, which is the least polar of the rubbers studied, approaches nonpolar rubbers. Less plastic rubbers are more effective plasticizers for the perchlorovinyl resin because of the low mobility of both the structural links and rubber molecules as

Card 1/2

L 1877-66
ACCESSION NR: AP5022509

a whole. Low-molecular rubber has a tendency to form microheterogeneous structures. A mutual relationship was established between the content of nitrile groups, plasticizing capacity of the rubber, and water resistance of the compositions. In the region of low rubber concentration, a marked increase in the vapor permeability of films whose composition includes SKN-18 is explained by the heterogeneity of the compositions in this range. The vapor permeability is determined by the diffusion of water vapor through the film and by the evaporation of the water adsorbed by the film owing to the presence of polar groups. Orig. art. has: 6 figures and 1 table.

ASSOCIATION: None

SUBMITTED: 00 ENCL: 00 SUB CODE: MT

NO REF SOV: 002 OTHER: 001

Card 2/2

L 18011-66 EWT(m)/EWP(j) RM
ACC NR: AP6004315 SOURCE CODE: UR/0303/65/000/005/0022/0025

25
B
15,44,55

AUTHOR: Frost, A. M.; Rozhkov, Yu. P.

ORG: none

TITLE: Study of pigmented compositions based on perchlorovinyl resin and nitrile rubber

SOURCE: Lakokrasochnyye materialy i ikh primeneniye, no. 5, 1965, 22-25

TOPIC TAGS: resin, nitrile rubber, pigment

ABSTRACT: The properties of pigmented systems based on SPS perchlorovinyl resin and SKN-26 plasticizer were studied in order to establish the optimum proportions of the components. Physicomechanical properties (tensile strength, elongation, hardness), swelling in water, and vapor penetrability were measured on samples containing SPS and SKN-26 in the ratios 9:1, 5:1, 3:1, 1:1, and 3:7. Changes in the structure of the compositions associated with an increasing content of rubber and pigment were analyzed, and it was concluded that in small quantities, the rubber and pigment have the same effect on the structure of perchlorovinyl resin and are

UDC: 667.633.41

Card 1/2

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ACC NR: AP6004315

identical in many respects at higher concentrations. Experimental data showed the 3:1 composition to have the optimum properties. The composition is (in parts by weight): SPS, 75; SKN-26, 25; pigment (iron ocher and talc, 4:1), 100. It can be used for anticorrosive paints. Orig. art. has: 8 figures.

SUB CODE: 11/ SUBM DATE: 00/ ORIG REF: 008/ OTH REF: 000

Card 2/2 mg5

Rozhkov, Yu P.

3

18.8310
15.9202

26988

S/138/61/000/005/001/005
A051/A129

AUTHORS: Klebanskiy, A. L., Tsukerman, N. Ya., Kartsev, V. N., Labutin, A. L., Tronko, Yu. V., Nal'shina, L. P., Boroyikova, N. A., Karelina, G. G., Rozhkov, Yu. P.

TITLE: A new type of chloroprene rubber: liquid nairite
(This work was awarded the second prize at the VKhO im. D. I. Mendeleyev competitions in 1959)

PERIODICAL: Kauchuk i rezina, no. 5, 1961, 1 - 5

TEXT: The high chemical stability, the gasoline-petroleum stability and ozone-resistance of chloroprene rubber makes it a suitable material for anti-corrosion coating and hermetic sealing. However, the difficulty of producing highly-concentrated solutions based on commercial nairite limited the application of the latter in anti-corrosion technique. It has been assumed that the use of low-molecular polymers for this purpose would enable one to obtain low-viscose, highly-concentrated solutions satisfying the anti-corrosion techniques. One of the methods for producing low-molecular polymers is the use of the polymerization of increased concentrations of regulator-compounds able to break the chains and to form new ac-

Card 1/6

26588 S/138/61/000/005/001/005
A new type of chloroprene rubber; liquid nairite A051/A129

tive centers. Sulfurous compounds, such as mercaptans, thioacids, xanthogenesulfides, are widely used as regulators. When studying the action of n-tetradecylmercaptane, diisopropylxanthogenedisulfide and bisethylxanthogenedisulfide during the process of polymerization of chloroprene, it was established that with an increase in the concentration of the regulator the molecular weight of the polymer drops correspondingly and the plasticity of the rubber increases. It was assumed that the use of greater quantities of bisethylxanthogenedisulfide in the polymerization of chloroprene in emulsion decreases the molecular weight of the polymer and yields low-viscosity solutions of rubber. An attempt was made to produce low-molecular polychloroprene by polymerization of chloroprene in the presence of sulfur with subsequent destruction of the polymer. It was shown that the action of sulfur differs from that of other regulators. The effect of sulfur on the polymers of chloroprene is shown by the scheme: $-(CH_2-CCl=CH-CH_2)_n-S_x-(CH_2-CCl=CH-CH_2)_n-S_x$, where x=2-6. The sulfur forms linear bonds in the polymer chain. With an increase in the bound sulfur content in the polymer the molecular weight of the polymer decreases in the subsequent interaction with thiuram from 600,000 to 280,000 with 0.3% of bound sulfur and from 300,000 to 43,000 with 1% of bound sulfur. The quantity of reacted thiuram increases respectively. The destruction scheme is given as follows: 1) The formation of free radicals under the effect of the thermal action or thiuram:

Card 2/6

26988 S/138/61/000/005/001/006
A051/A129

A new type of chloroprene rubber: liquid nairite

$-(CH_2-CCl=CH-CH_2)_n-S-S-S-S-(CH_2-CCl=CH-CH_2)_m-S-S-S-S- \rightarrow -(CH_2-CCl=CH-CH_2)_n-S;$

2) Recombination of the polymer radical with molecular thiuram and splitting off of the latter along the -S-S-bond:

$$-(CH_2-CCl=CH-CH_2)_n-S\cdot + (C_2H_5)_2N-\overset{\overset{S}{\|}}{C}-S-S-\overset{\overset{S}{\|}}{C}-N(C_2H_5)_2 \rightarrow$$

$$\rightarrow -(CH_2-CCl=CH-CH_2)_n-S-S-\overset{\overset{S}{\|}}{C}-N(C_2H_5)_2 + (C_2H_5)_2N-\overset{\overset{S}{\|}}{C}-S\cdot$$

Based on the outlined assumptions of the mechanism of the sulfur action during the process of chloroprene polymerization and destruction of the polymer under the effect of the chemical masticating substances, the conditions for producing low-molecular chloroprene rubber-"liquid" nairite were developed. The liquid types of nairite can be obtained on a typical apparatus. The sulfur can be introduced in the form of solutions in mineral oils as well as aqueous dispersions obtained in the presence of emulsifiers and protective colloids. It was shown by V. N. Kartsev, M. A. Gutman, G. G. Karelina, F. Ye. Berman, Ye. G. Malinovskaya, M. B. Shur at VNIISK, no. 2389, 1951, that for mastication the most effective system is mercapto-

Card 3/6

26938 S/138/61/000/005/001/006
A new type of chloroprene rubber: liquid nairite A051/A129

benzothiazol (captax)-diphenylguanidine (DFG). To increase the activity of these agents, tetramethylthiuramdisulfide was added (thiuram D) or tetraethylthiuramdisulfide (thiuram E). Literature data indicate that active masticating agents of polychloroprene are the piperidine salt of hexamethylenedithiocarbamine acid or ammonium hexamethylenedithiocarbamate. The order of introduction of the agents plays an important role. The effect of the type and composition of the carbon black on the solubility of the rubber mixtures from "liquid" nairite was investigated. Only the thermal carbon black helps to retain complete solubility. Higher indices of relative elongation when filling with 100 w.p. and over are achieved with thermal carbon black. The composition and technology for preparing the rubber mixtures based on the "liquid" nairite with thermal carbon black as filler yielded highly-concentrated solutions (70 - 75%). These solutions are suitable for sealing various equipment by the same methods which are used in the case of dye and varnish coatings. Tests of coatings made of liquid nairite in experimental and natural samples in various industrial fields showed the expediency of using this product as a material for protecting the metal from corrosion, erosion, cavitation and also as a material for hermetic sealing. There are 4 tables and 21 references: 2 Soviet-bloc, 19 non-Soviet-bloc. The references to the 4 most recent

Card 4/6

3

26988 S/138/61/000/005/001/006
A new type of chloroprene rubber: liquid nairite A051/A129

English-language publications read as follows: Corros. Technol., 5, no. 4, 107 (1958); R. B. Seymour a. oth., Plastics for Corrosion Resistant Application, N.Y., 1955, 90; Rubb. a. Plast. Age, 39, no. 8, 684 (1958); Corros. Technol., 3, no. 3, 89 (1956).

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut sinteticheskogo kauchuka im. S. V. Lebedeva (All-Union Scientific Research Institute of Synthetic Rubber im. S. V. Lebedev)

X

Card 5/6

4

27544
S/138/61/000/005/002/006
A051/A129

15.9201

AUTHORS: Labutin, A. L., Klebanskiy, A. L., Tsukerman, N. Ya., Kartsev, V. N., Trenko, Yu. V., Mal'shina, L. P., Borovikova, N. A., Karelina, G. G., Rozhkov, Yu. P.

TITLE: "Liquid nairite" - a new material for rubberizing

PERIODICAL: Kauchuk i rezina, no. 6, 1961, 5 - 8

TEXT: The authors state that in the chemical destruction of "liquid" nairite, highly concentrated solutions can be produced which are applicable as a material for rubberizing. In the USSR a safer binary solvent, consisting of 2 weight parts of ethylacetate and 1 w.p. of gasoline is used in nairite adhesives. Experiments showed, however, that this solvent in "liquid" nairite is not suitable for many technical reasons. Better results were obtained in using a ternary solvent consisting of 76% solvent, 19% turpentine and 5% n-butanol. The latter component does not dissolve the nairite, but facilitates the use of the brush for painting and good coating distribution. It was noted that film vulcanization from liquid nairite at 20°C does not show positive results. Thus various forms of thermal vulcanization were investigated: vulcanization with heated air, live vapor, hot water

Card 1/6

4

27544
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A051/A129

"Liquid nairite" - a new material for rubberizing

and infra-red irradiation. It was established that the most suitable method was vulcanization by hot air. The physico-mechanical indices of nairite coatings vulcanized in air at various temperatures are given in Fig. 1. Fig. 2 shows the relationship between the temperature and duration of the vulcanization. The most suitable temperatures of vulcanization in air are within the range of 100 - 142°C. It was noted that the liquid nairite coatings did not possess the proper adhesion to metal. Thus certain other adhesives or coatings ensuring better adhesion between metal and coating were sought. The best results were obtained with the following three materials: standard leuconate (organic base: n, n', n" - triisocyanatotriphenylmethane), chloronairite adhesive (organic base: chloronairite and nairite) and a primer, tentatively called epoxide primer (organic base: epoxide resin, chloronairite and nairite). The chemical stability and anti-corrosion properties of the vulcanized nairite coatings were studied. The conclusion was drawn that 1.2-mm nairite coatings in combination with a water-resistant coating applied three times can reliably protect metals from corrosion due to aqueous solutions of many acids, alkali and salts. The coatings were not resistant to the action of oxidizing agents, aromatic and halided solvents. Rubber coatings differ from varnish and plastic coatings by an increased resistance to abrasive wear. An attempt was made

Card 2/6

4

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A051/A129

"Liquid nairite" - a new material for rubberizing

to determine the resistance of nairite coatings under conditions of dry friction using the Grossolli-type machine. It is concluded that coatings of so-called crystallizing liquid nairite obtained in low-temperature polymerization are superior to other rubbers in their wear-resistance, excepting vulcollane, which has a unique resistance to abrasive wear. It was established that coatings of liquid oil nairite are superior to coatings of bakelite, polyethylene and caprone, when tested in rapidly flowing sea water. Tests have further shown that liquid nairite as a material for coatings will become widely used in industry in the next few years. At present tests are being conducted in the North Sea and the Atlantic Ocean on propellers of fishing trawlers coated with liquid nairite for protection from corrosion, erosion and cavitation. Mechanical plants are testing steel covers of refrigerators and condensators coated with nairite. Those were previously manufactured from non-ferrous metals. Certain chemical plants have installed diaphragm valves, the interior of which is covered with liquid nairite to prevent corrosion from acid solutions, alkali and salts. The possibility of using nairite coatings in various instruments as a means for preventing spark formation in percussion has also been revealed. Finally, it was established that these coatings can be used in certain constructions for hermetic sealing. At the Moscow TETs NO 12 a vacuum-condensator of a mass-produced 50 thousand kw steam turbine withstood a

Card 3/6

4

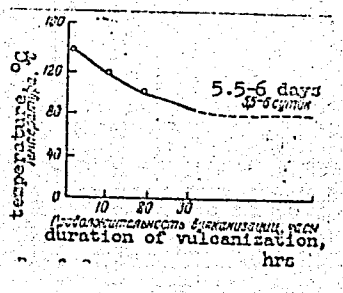
27544
S/138/61/000/006/002/006
A051/A129

"Liquid nairite" - a new material for rubberizing

testing period of one and a half years with the brass pipes and steel pipe boards coated with liquid nairite. K. S. Shmurey, O. P. Abolina, A. I. Konstantinova and G. A. Selivanovskaya took part in the work. There are 2 tables and 2 sets of graphs.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut sinteticheskogo kauchuka im. S. V. Lebedeva (All-Union Scientific Research Institute of Synthetic Rubber im. S. V. Lebedev)

Fig. 2. Dependence of the vulcanization duration of the coatings made of liquid nairite on the temperature



Card 4/6

ROZHKOV, Yu.P.; OKHRIMENKO, I.S.

Surface tension of plasticized ethyl cellulose melts. Koll. zhur. 26 no.5:608-612 S-O '64. (MIRA 17:10)

1. Leningradskiy tekhnologicheskiy institut imeni Lensoveta, kafedra tekhnologii lakov, krasok i nemetallicheskikh pokrytiy.

KLEBANSKIY, A.L.; TSUKERMAN, N.Ya.; KARTSEV, V.N.; LABUTIN, A.L.; TRENKE, Yu.V.; MAL'SHINA, L.P.; BOROVIKOVA, N.A.; KARELINA, G.G.; ROZHKOV, Yu.P.

Liquid nairit, a new type of chloroprene rubber. Kauch.i rez. 20 no.20:1-5 My '61. (MIRA 14:5)

1. Vsesoyuznyy nauchno-issleodvatel'skiy institut sinteticheskogo kauchuka im. S.V.Lebedeva.
(Rubber, Synthetic) (Neoprene)

LABUTIN, A.L.; KLEBANSKIY, A.L.; TSUKERMAN, N. Ya.; KARTSEV, V.N.; TRENKE, Yu.V.; MAL'SHINA, L.P.; BOROVIKOVA, N.A.; KARELINA, G.G.; ROZHKOV, Yu. P.; Prinimali uchastiye: SHMUREY, K.S.; ABOLINA, O.P.; KONSTANTINOVA, A.L.; SELIVANOVSKAYA, G.A.

"Liquid nairit," a new material for rubberizing. Kauch. i rez. 20 no.6:5-8 Je '61. (MIRA 14:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut sinteticheskogo kauchuka im. S. V. Lebedeva.
(Neoprene)
(Rubberized fabrics)

USSR/Medicine - Toxivology, Cholinolytic Agents Mar/Apr 53

"Application of Drugs Which Affect the Chemical Transmission of Nerve Impulses in the Therapy of Intoxications," M. Ya. Mikhel'son

Farm i Toks, Vol 16, No 2, pp 61-62

The author and his collaborators (Uspenskaya, Rappoport, Savinskiy, Zeymal', Roshkova, Savateyev) found that pentaphen and the USSR cholinolytic drugs diphasin and gangleron readily eliminate bronchial spasms induced in curarized cats by intravenous injection of proserine, and that they also prevent nicotine spasms in rabbits and mice. They established that the best antispasmodic effect is produced by gangleron in combination with benzimidazole, the latter presumably having a narcotic effect. They also found that reversible disturbances of the nervous system produced by pentaphen or atropine do not develop upon preliminary administration of proserine.

PA 254T27

ROZHKOVA, A.A., kand.med.nauk

Traumatism among children in Alma-Ata and its prevention. Zdrav. Kazakh. 21 no.10:21-23 '61. (MIRA 15:2)

1. Iz kafedry travmatologii i ortopedii (zav. - prof. G.L.Edel'shteyn) Kazakhskogo meditsinskogo instituta.
(ALMA-ATA--CHILDREN'S ACCIDENTS)

ROZHKOVA, A.A., kand.med.nauk; TURABAYEV, A.T.

Results of treating injuries of the extremities as revealed by data of the Medical Expert Commission for the Evaluation of Work Capacity in the city of Alma-Ata. Zdrav.Kazakh. 22 no.3: 8-12 '62. (MIRA 15:12)

(EXTREMITIES (ANATOMY)--WOUNDS AND INJURIES)
(DISABILITY EVALUATION)

ROZHKOVA, A.A.

Using an intraosseous novocaine block in treating trophic ulcers and long nonhealing wounds. Ortop.,travm. i protez. 20 no.5: 16:18 My '59. (MIRA 12:9)

1. Iz kliniki gospital'noy khirurgii (zav.kafedroy - prof.V.S. Gamov) Kazakhskogo meditsinskogo instituta.

(ANESTHESIA, REGIONAL, in various dis.
procaine block, intraosseous admin., in trophic ulcers & longstanding nonhealing wds. (Rus))

(ULCER, ther.
procaine block, intraosseous admin., in trophic ulcer (Rus))

ROZHKOVA, A.A., kand.med.nauk

Analysis of injuries in Alma-Ata in 1958. Ortop., travm. i protez. no.9:48-50 '61. (MIRA 14:10)

1. Iz kliniki ortopedii i travmatologii (zav. kafedroy - doktor med.nauk G.L. Etsel'shteyn) Kazakhskogo meditsinskogo instituta.
(ALMA ATA--WOUNDS AND INJURIES)

BABASHEV, B.S.; ROZHKOVA, A.P.; GUT, V.A.; SEMENOV, G.V.

Prolapse of the heart from the pericardium into the pleural cavity following a pulmonectomy. Trudy Inst. klin. i eksp. khir. AN Kazakh. SSR 9:100-103 '63. (MIRA 17:12)

E.ROZHKOVA, (Ye.G.Razumnaya), (N.Serebryakova), (O.Shcherbak)

"SORPTION IN CONCENTRATION OF URANIUM IN SEDIMENTARY ROCKS" by E. Rozhkova, Ye. G. Razumnaya, N. Serebryakova, O. Shcherbak.

Report presented at 2nd UN Atoms-for-Peace Conference, Geneva, 9-13 Sept 1958

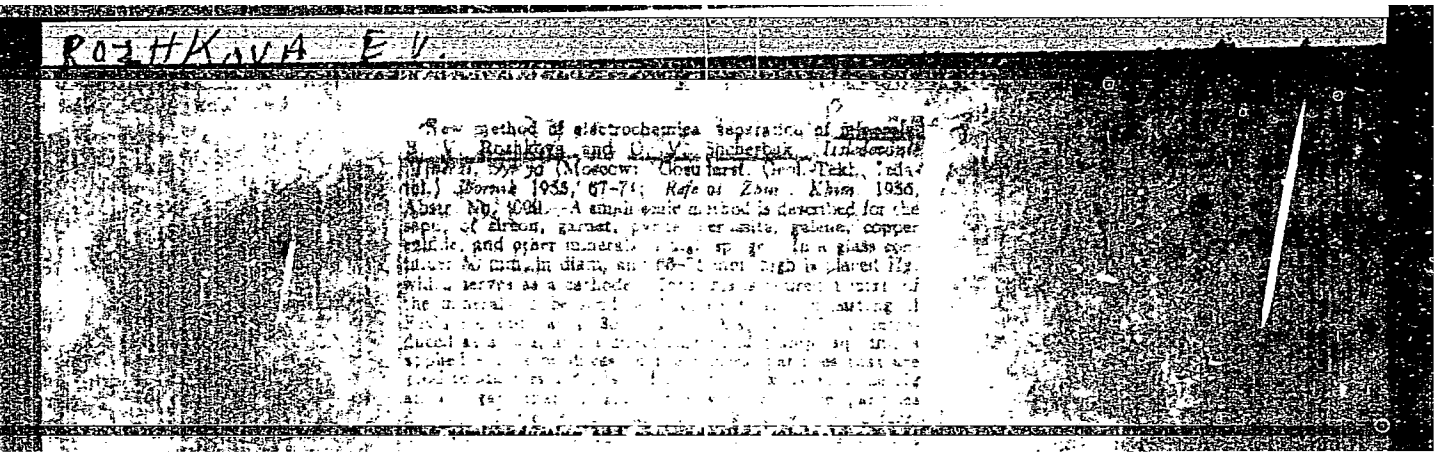
Rozhkova E.

ROZHKOVA, N. K., Cand. Chem. Sci. (diss) "Alkalinization of Aromatic Compounds in the Absence of Metallic Catalyzers," Tashkent, 1961, 10 pp. (Acad. of Sci. Uzbek SSR, Combined Scientific Council on Chemistry of the Dept. of Geological-Chemical Sciences) 175 copies (KL Supp 12-61, 256).

POPOVA, Ye.N.; ROZHKOVA, E.V.; GOROKHOVATSKIY, Ya.B.

Oxidation of butenes on a cuprous oxide catalyst. Ukr. khim. zhur. 31 no.10:1015-1025 '65. (MIRA 19:1)

1. Institut fizicheskoy khimii AN UkrSSR. Submitted June 22, 1964.



ROZHKOVA, G.I.; ETKIN, V.S.

Discussion of the article "Sensitivity gain of a radar receiver using a synchronous parametric amplifier" published in the Proceedings of the I.R.E. Radiotekh. i elektron. 8 no.6: 1082-1086 Je '63. (MIRA 16:7)

(Radar)

GERSHENZON, Ye.M.; LYUBIMOVA, T.F.; ROZHKOVA, G.I.; ETKIN, V.S.

Dynamic characteristics of a stage with variable capacitance and low level of regeneration. Izv. vys. ucheb. zav.; radiotekh. 6 no.3:303-304 My-Je '63. (MIRA 16:9)

1. Rekomendovano kafedroy eksperimental'noy fiziki Moskovskogo pedagogicheskogo instituta imeni Lenina.
(Parametric amplifiers)

ETKIN, Valentin Semenovich; GERSHENZON, Yevgeniy Mikhaylovich. Prinimali uchastiye LAVUT, A P.; LYUBIMOVA, T.F.; SOINA, N.V.; KHOTUNTSEV, Yu.L.; ROZHKOVA, G.I.; KARMANOVA, Ye.S.; STRUKOV, I.A.; VYSTAVKIN, A.N., retsenzent; ARONOV, V.L., retsenzent; MASHAROVA, V.G., red.

[Superhigh-frequency parametric systems using semiconductor diodes] Parametricheskie sistemy SVCh na poluprovodnikovykh diodakh. Moskva, Sovetskoe radio, 1964. 351 p.
(MIRA 17:11)

ROZHKOVA, G.I.

Nonstationary processes in a circuit with variable parameters. Izv.vys.ucheb.zav.;radiofiz. 5 no.1:194-197 '62. (MIRA 15:5)

1. Moskovskiy gosudarstvennyy pedagogicheskiy institut imeni Lenina.
(Electric circuits) (Electromagnetic waves)

KARMANOVA, Ye.S.; ROZHKOVA, G.I.; ETKIN, V.S.

Some problems of the theory of a four-frequency parametric amplifier. Radiotekh. i elektron. 9 no.9:1622-1627 S '64.

(MIRA 17:10)

L 24908-65 EWT(1)/EWA(h) Pm-4/Peb

ACCESSION NR: AP4045484 S/0109/64/009/009/1622/1627

AUTHOR: Karmanova, Ye. S.; Rozhkova, G. I.; Etkin, V. S.

TITLE: Some problems in the theory of a 4-frequency parametric amplifier

SOURCE: Radiotekhnika i elektronika, v. 9, no. 9, 1964, 1622-1627

TOPIC TAGS: parametric amplifier, 4 frequency amplifier

ABSTRACT: Synchronous conditions are considered in a 4-frequency amplifier operating at ω, $p-\omega$, $p+\omega$, and $2p-\omega$ frequencies, where ω is the signal frequency and p is the pumping frequency, i.e., the parameter-modulation frequency in the amplifier. The effect of the parasitic circuit at $p+\omega$ on the operation of a parametric amplifier under degenerate and quasidegenerate conditions is evaluated. Distribution of the amplitude and phase of a random signal applied to the amplifier is clarified; a formula for the noise factor measured by a noise generator is derived. It is proven that, under the above conditions, the

Card 1/2

L 24908-65

ACCESSION NR: AP4045484

4-frequency amplifier is similar to a 2-frequency amplifier operating under synchronous conditions and that the sum-frequency circuit in the former is conducive to higher equivalent noise temperatures without any benefit for statistical output-signal characteristics. Orig. art. has: 2 figures and 45 formulas.

ASSOCIATION: none

SUBMITTED: 18Jun63 ENCL: 00

SUB CODE: EC NO REF SOV: 005 OTHER: 003

Card 2/2

ROZHKOVA G.I.

FD-2180

USSR/Miscellaneous

Card 1/2 Pub. 129-20/20

Author : -

Title : Life in Moscow University

Periodical : Vest. Mosk. un., Ser. fizikomat. i yest. nauk, 10, No 2, 171-178, Mar 1955

Abstract : Six brief notices: I. A. Voronkov, "Scientific relations of Moscow Univ. with peoples' democratic countries." N. Filin, "Exhibition on the history of Moscow University." Anonymous "Scientific council Moscow State U. on the natural sciences." G. I. Rozhkova (head of the chairs) and Ye. I. Motina, "Work of the Chairs of the Russian Language for students and foreign aspirants." Anonymous, "In honor of Prof. N. A. Kachinskiy." O. Kibal'chich, "Defense of dissertations" (The candidate dissertations of the following four were defended at the end of 1954 in the Geographical Faculty: I. F. Antonova, "Power engineering and metallurgy of Canada;" K. P. Kosmachev, "Economic geographical characteristics of agriculture in the region between the rivers Lena and Amga, Yakutsk ASSR;" I. N. Guseva, "Wall maps for the

course 'Physical Geography of the USSR' in higher school; I. M. Klebanova, "Landscape characteristics of the sandy massif of the Northeastern Prikaspiy (Caspian Region).").

Institution : -

Submitted : -

S/109/61/006/005/019/027
D201/D303

9,2572

AUTHORS: Gershenzon, Ye.M., Ptitsyna, N.G., Rozhkova, G.I., and Etkin, V.S.

TITLE: A single circuit parametric amplifier

PERIODICAL: Radiotekhnika i elektronika, v. 6, no. 5, 1961, 829 - 834

TEXT: The authors give certain results of studying a single circuit parametric amplifier using a simi-conductor diode. They based their study on works published in the thirties, of the school of L.I. Mandel'shtam and of N.D. Papaleksi (Ref. 5: K. voprosu o parametricheskoy regeneratsii (On the Question of Parametric Regeneration) IEST, 1935, 3, 1) (Ref. 6: E.M. Rubchinskiy, IEST, 1953, 3, 7) (Ref. 7: M. Divil'kovskiy, S. Rytov, ZhTF, 1936, 6, 3, 474) (Ref. 8: V.A. Lazarev, Kolebaniya v svyazannykh sistemakh s periodicheski menyayushchimisya parametrami (Oscillations in Linked Systems With Periodically Changing Parameters) ZhTF, 1940, 10, 11, 918).

Card 1/6

A single circuit ...

The theory of a single circuit parametric amplifier is based in its essentials on Ref. 10 (Ref. 10: Spravochnik po volnovodam (Waveguide Handbook) perev. s angl. pod red. v. i. Sushkevicha, Izd. Sovietskoye radio, 1952)[Abstractor's note: No further details given]. The circuit oscillations equation is given as

$$L\frac{d^2q}{dt^2}+R\frac{dq}{dt}+\frac{1}{C_0}[1+m\sin(\omega_{\text{н}}t-\varphi_{\text{н}})]q=E_0\sin(\omega_{\text{с}}t-\varphi_{\text{с}}). \qquad (3)$$

where L - the equivalent inductance of the cct; $R = Z + R_s$; R_s - the loss resistance of the diode. [Abstractor's note: The symbols are those used in Ref. 7 (Op.cit.)]. Applying the method of Ref: 7 (op.cit.) and notation of

$$y=\frac{q}{C_0U_0};\quad \lambda=\frac{E_0}{U_0};\quad 2\theta=\frac{R}{\omega_0L};\quad \omega_0^2=\frac{1}{LC_0};\quad \omega_{\text{н}}=2\omega_1;$$

$$t=t_1+\frac{\varphi_{\text{н}}}{\omega_{\text{н}}};\quad \frac{\omega_0}{\omega_1}=1+\xi_0;\quad \frac{\omega_{\text{с}}}{\omega_1}=1+\xi;\quad \tau=\omega_1t\quad \Psi=\varphi_0-\frac{\omega_{\text{с}}}{\omega_{\text{н}}}\varphi_{\text{н}}$$

Card 2/6

A single circuit ...

the equation for the amplitude of the fundamental of oscillations is derived as

$$A^2 = \frac{\lambda^2}{4C^2}\left[\left(\xi_0^2 + \left(\theta + \frac{m}{4}\right)^2\right)\sin^2\Psi + \left(\xi_0^2 + \left(\theta - \frac{m}{4}\right)^2\right)\cos^2\Psi - \xi_0\frac{m}{4}\sin 2\Psi\right] \quad (8)$$

where Ψ is the signal frequency and ω_p the pumping frequency. The amplitudes of harmonics are given in

$$A^2_{1+\xi} = \lambda^2\frac{\theta^2 + (\xi_0 + \xi)^2}{4(4\xi^2\theta^2 + C^2)}, \quad A^2_{1-\xi} = \lambda^2\frac{\left(\frac{m}{4}\right)^2}{4(4\xi^2\theta^2 + C^2)}. \quad (9)$$

and the resonance curves for synchronism and 2nd harmonic regime are given for three values of ξ, from which it may be seen that the maximum of amplification occurs near $\omega_s = 1/2\ \omega_p$. The minimum noise figure which can be obtained is given by

Card 3/6

S/109/61/006/005/019/027
D201/D303

$$F_{min} = 1 + \frac{1}{\frac{f_{cr}}{f} - 1} \frac{T_s}{T_o},$$

in which f_{cr} is the frequency at which the modulation of the self-capacity of the diode can compensate only for losses introduced by the diode itself. The experimental studies of single circuit amplifiers were carried out using arrangements described by the authors (Ref. 15: Osnovy teorii, rascheta i voprosy metodiki eksperimental'nogo issledovaniya odnokonturnykh parametricheskikh usiliteley SVCh na poluprovodnikovykh diodakh, Radioelektronnaya prom - st', 1959, 17, 3) at frequencies 3,000 and 4,500 mc/s. It was observed that there are two harmonics present at the output.

Table.

(1) $f_{раб}$ (working), Мгц (mc/s)	Q	(2) $Q_{внешн}$ (ext)	(3) K, дб (db)	(4) $\Delta f_{усил}$ (ampl.), Мгц (mc/s)	(5) $\Delta f_{перестр}$ (tuning), Мгц (mc/s)	(6) $\sqrt{K_1} \frac{\Delta f_{эксп}}{f}$
4500	25—30	30—35	27 (500 раз)	7		$155/4500 \simeq \frac{1}{30}$
	25—30	30—35	20 (100 раз)	15	40*	$150/4500 \simeq \frac{1}{30}$.

A single circuit ...

Table (cont'd). Legend: 1 - $f_{working}$ mc/s; 2 - Q_{ext}; 3 - K, db; 4 - f_{ampl} mc/s; 5 - f_{tuning} mc/s; 6 - $\sqrt{K_1}\,\frac{\Delta f_{exp}}{f}$.

The table gives the magnitudes of the Q-factor of one of the amplifier models, together with the measured values of other parameters at a frequency of 4,500 mc/s, using diodes as described by M. Gershenzon and V.S. Etkin (Ref. 12: O parametricheskoy regeneratsii v diapazone SVCh na poluprovodnikovom diode, Izv. vuzov MVO SSSR (Radiofizika) 1959, 2, 5, 835). Similar results have been obtained at 3,000 mc/s. The authors acknowledge the help of K.A. Merkur'yev, N.Ye. Skvortsova, A.V. Krasilov, V.M. Val'd - Perlov and A.A. Rabinovich-Vizel'. There are 3 figures, 1 table and 17 references: 13 Soviet-bloc and 4 non-Soviet-bloc. The references to the English-language publications read as follows: H. Heffner, G. Kotzebue, Proc. I.R.E., 1958, 46, 6, 1301; G. Herrman, H. Venohara, A. Uhlir, Proc. I.R.E., 1958, 46, 6, 1301; S. Blooms, K.K. Chang, R.C.A. Rev., 1957, 18, 4, 578; A. Uhlir, Proc. I.R.E., 1956,

Card 5/6

22272
S/109/61/006/005/019/027
D201/D303

A single circuit ...

44, 4, 557.

ASSOCIATION: Moskovskiy gosudarstvennyy pedagogicheskiy in-t im. V.I. Lenina Kafedra eksperimental'noy fiziki (Moscow State Pedagogical Institute im. V.I. Lenin, Department of Experimental Physics)

SUBMITTED: July 2, 1959 (initially)
March 3, 1960 (after revision)

Card 6/6

ROZHKOVA, G.I.

Quantum approach to a synchronous parametric system. Radiotekh. i elektron. 10 no.4:773 Ap '65. (MIRA 18:5)

S/141/61/004/001/010/022
E192/E382

9.2572 25950

AUTHORS: Gershenzon, Ye.M., Lyubimova, T.F., Ptitsyna, N.G., Rozhkova, G.I. and Etkin, V.S.

TITLE: Investigation of the Super-regenerative Regime in Single-tuned Parametric Amplifiers

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Radiofizika, 1961, Vol. 4, No. 1, pp. 113 - 120

TEXT: The super-regenerative regime in parametric amplifiers can be achieved by additionally introducing low-frequency modulation of the variable capacity in the system (Ref. 1 - Heffner, H., Wade, G. and Junger, M. - Proc. IRE, 47, 1971, 1959; Ref. 2 - B. Bossard - Proc. IRE, 47, 1970, 1959). If this regime in the amplifier is achieved by a comparatively slow modulation of the pump signal, the oscillations in a series LCR circuit of the system can be described by:

$$L\frac{d^2q}{dt^2}+R\frac{dq}{dt}+\frac{q}{C_0}\{1+m[1+h\cos(\omega_m t)]\sin(\omega_n t)\}=E_0\cos(\omega_c t-\varphi), \qquad (1)$$

Card 1/8

Investigation of the 25950

where ω_c is the signal frequency,

ω_H is the modulation frequency,

m is the mean modulation depth of the nonlinear capacitance, and

h is the depth of the low-frequency pump-source modulation.

Eq. (1) can also be written as:

$$\ddot{y} + 2\theta\dot{y} + (1 + 2\xi_0)\, y + my\,[1 + h\cos(\Omega\tau)]\,\sin(2\tau) = \lambda\cos[(1+\xi)\tau - \varphi], \quad (2)$$

where:

$$y = q/C_0 u_0;\ \lambda = E_0/u_0;\ 2\theta = R/\omega_0 L;\ 2\omega_0/\omega_n = 1 + \xi_0;$$
$$2\omega_c/\omega_n = 1 + \xi;\ 2\omega_m/\omega_n = \Omega;\ \tau = \omega_n t/2;\ \omega_0 = 1/\sqrt{LC_0}. \quad (2a)$$

In the analysis of this equation it is assumed that $\xi_0 = 0$ and that the system can be solved by the Van-der-Pol equation,

Card 2/8

Investigation of the 25950...

which is in the form:

$$y = a \sin \tau + b \cos \tau$$

where a and b are slowly varying time functions. Consequently, the system of simplified equations for the amplifier (Ref. 3 - the authors - Radio-engineering industry, 17, '3, 1959) can be written as:

$$2\dot{a} = \lambda \cos(\xi - \varphi) - \left(2\theta + \frac{m}{2}\right) a - \frac{mh}{2} a \cos(\Omega\tau);$$

$$-2\dot{b} = -\lambda \sin(\xi - \varphi) + \left(2\theta - \frac{m}{2}\right) b - \frac{mh}{2} b \cos(\Omega\tau), \quad (3),$$

which differs from those obtained in Ref. 3 by the presence of the last terms which are due to the modulation. It can be assumed that the solution of the simplified equations is in the form:

Card 3/8

Investigation of the ....

$$a = \sum_N \left| A_{1N} \sin \left| (\xi + N\Omega)\tau - \tfrac{\pi}{2} \right| + A_{2N} \cos \left| (\xi + N\Omega)\tau - \tfrac{\pi}{2} \right| \right| ;$$

$$b = \sum_N \left| B_{1N} \sin \left| (\xi + N\Omega)\tau - \tfrac{\pi}{2} \right| + B_{2N} \cos \left| (\xi + N\Omega)\tau - \tfrac{\pi}{2} \right| \right| , \quad (N \neq 0), \qquad (4)$$

where A_{1N}, A_{2N}, B_{1N} and B_{2N} are constant coefficients. These constants can be determined from an infinite system of algebraic equations which are obtained by substituting Eqs. (4) into Eqs. (3). However, in practice, it is sufficient to consider only a finite N, so that the number of equations is reduced. By analysing the solutions obtained on the basis of Eqs. (4), it is concluded that:
1) the amplification bandwidth in the super-regenerative regime is greater than that in the regenerative regime for the same maximum amplification coefficient, and
2) at $\omega_c = \omega_H/2 \pm N\omega_m$, the amplitude of the oscillations

Card 4/8

Investigation of the ....

of the signal frequency and other frequency components achieves a maximum, the maximum being most pronounced in the component $\omega_c \pm N\omega_m$ which coincides with $\omega_H/2$. The oscillations in the super-regenerative amplifier have a complex spectrum and two types of frequency characteristics are possible:
a) the overall value of the oscillations excited is regarded as the response of the system and thus the corresponding frequency characteristic can be observed if the amplifier is followed by a video detector;
b) the amplitude of the oscillations having a frequency of the input signal, or that of one of the spectral components, is regarded as the response of the system; in this case the characteristic can be determined if the amplifier is followed by a filter or a superheterodyne receiver having a narrow bandwidth. These effects are illustrated by families of frequency characteristics of the two types which are given in Figs. 1 and 2. The characteristics of Fig. 1 were evaluated for $\Theta = 0.021$, $m = 0.08$, $n = 0.047$, $\Omega = 6 \times 10^{-3}$ and $h = 100\%$;

Card 5/8

Investigation of the 25950 ....

the parameters for Fig. 2 were $\Theta = 0.021$, $m = 0.08$, $n = 0.047$, $\Omega = 0.25 \times 10$ and $h = 0.75\%$. From these figures it is seen that the magnitude of the secondary maxima in the super-regenerator-filter system decays faster than in the super-regenerator-video detector system. The super-regenerative amplifier was investigated experimentally at comparatively low frequencies (1.3 Mc/s) and at UHF. The amplifier for 1.3 Mc/s was studied by employing a sweep-frequency generator and a superheterodyne receiver. Investigation of the UHF amplifiers was performed by means of a spectrum analyser. The measured results are in qualitative agreement with the calculated data. In particular, the measured characteristics show that in the case when the modulation frequency ω_m is greater than the bandwidth of the amplifier, the frequency response of the system has a large number of narrowly-spaced peaks (comb-like response).
The authors express their gratitude to Yu.Ye. D'yakov for discussing the problems of this work.

Card 6/8

25950

S/141/61/004/001/010/022
E192/E382

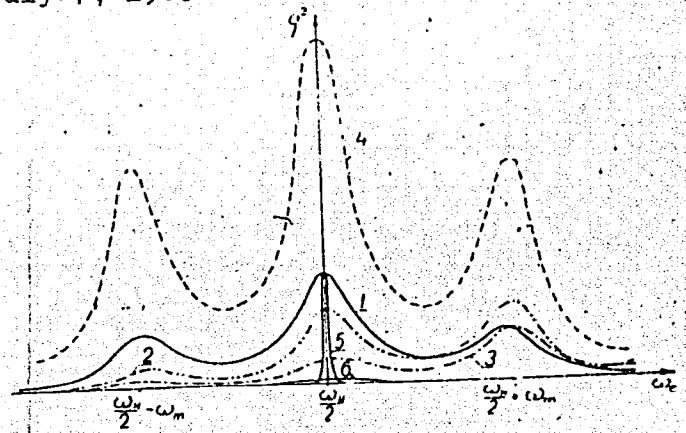
Investigation of the ....

There are 7 figures and 6 references: 4 Soviet and 2 non-Soviet (quoted in text).

ASSOCIATION: Moskovskiy pedagogicheskiy institut im.V.I.Lenina (Moscow Pedagogical Institute im. V.I. Lenin)

SUBMITTED: July 7, 1960

Fig. 1:



Card 7/8

ROZHKOVA, G.I.; ETKIN, V.S.

Problem concerning the passage of random signals through systems with variable parameters. Radiotekh. i elektron. 7 no.8:1451-1453 Ag '62. (MIRA 15:8)
(Automatic control) (Electronics)

ROZHKOVA, G.I.

3

32921

S/194/61/000/011/056/070
D271/D302

9,2572 (1139)

AUTHORS: Bogatkova, O.M., Gershenzon, Ye.M., Dombrovskaya, T.S., Ptitsyna, N.G., Rozhkova, G.I., Sperantov, V.V. and Etkin, V.S.

TITLE: Single-circuit regenerative and super-regenerative parametric amplifiers with semiconductor diodes

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika, no. 11, 1961, 12, abstract 11 K91 (V sb. Poluprovodnik. pribory i ikh primeneniye, no. 6, M., Sov. radio, 1960, 41-62)

TEXT: Theoretical and experimental results are given of a study of single-circuit regenerative and super-regenerative parametric amplifiers with semiconductor diodes. The amplifier forward and reflex operation in a synchronous and biharmonic mode is considered. Results of the investigation into noise parameters of the diode are given. Experiments confirmed the analytical results. It

Card 1/2

Single-circuit...

is shown that super-regenerative operation leads to considerable distortions of the received signal spectrum, but on the other hand it makes it possible to widen the amplifier bandwidth and to achieve greater stabilization of gain. 8 references. [Abstracter's note: Complete translation]

Card 2/2

GERSHENZON, Ye.M.; LYUBIMOVA, T.F.; PTITSYNA, N.G.; ROZHKOVA, G.I.; ETKIN, V.S.

Investigation of superregenerative conditions in single-stage parametric amplifiers. Izv.vys.ucheb.zav.; radiofiz. 4 no.1: 113:120 '61. (MIRA 14:8)

1. Moskovskiy pedagogicheskiy institut imeni V.I.Lenina.
(Amplifiers (Electronics))

GERSHENZON, Ye.M.; PTITSYNA, N.G.; ROZHKOVA, G.I.; ETKIN, V.S.

Concerning a single-stage parametric amplifier. Radiotekh. i elektron. 6 no.5:829-834 MY '61. (MIRA 14:4)

1. Moskovskiy gosudarstvennyy pedagogicheskiy institut imeni V. I. Lenina, kafedra eksperimental'noy fiziki.
(Amplifiers (Electronics))

KOCHKOVA, G. I.

"Biological Characteristics of the Shape of the Fruit-Bearing Organs of Oats and Wild Oats (At Various Stages of Development and Organogenesis.)" Cand Biol Sci, Moscow State U, Moscow, 1953. (RZhBiol, No 1, Sep 54)

SO: Sum 432, 29 Mar 55

ROZHKOVA, G.S.

Formation of grain-bearing organs in the wild oat. Vest.Mosk.un. 8 no.8:131-136 Ag '53. (MLRA 6:11)

1. Kafedra darvinizma. (Oats)

L 18384-65 EWT(1)/EWG(v) Pe-5/Pae-2 BSD/RAEM(a)/SSD/SSD(b)/SSD(c)/AFWL/
AFETR/ESD(gs)/ESD(t) GW
ACCESSION NR: AR4040390 S/0269/64/000/005/0022/0022

SOURCE: Ref. zh. Astron. Otd. vy*p., Abs. 5.51.191

AUTHOR: Artem'yev, V.V.; Rozhnova, I.P.

TITLE: Counting photons in weak light fluxes

CITED SOURCE: Izv. Kry*msk. astrofiz. observ., v. 30, 1963, 297-307

TOPIC TAGS: photon, photon counter, astrophysics, light flux

TRANSLATION: The authors discuss statistical and instrumental problems involved in photon counting. A light signal will be recorded if the counting rate is $n > 4\sigma_{noise}$, where n is the mean velocity of the flux, and σ_{noise} is the standard deviation of the counting rate of noise n_{noise}. The authors describe the design of a photon counter: the pulses from a photomultiplier are fed through a cathode follower to a broad-band USh-10 pulse amplifier, after which the pulses are selected by amplitudes by an ID-2 discriminator in the range 1-100 v and are recorded by a PS-10000 electronic recorder. The high-voltage current of the photomultiplier is supplied through a VS-22 stabilized rectifier. A point light source is used as the light flux source. Photomultipliers of the FEU-16 and FEU-64 types were tested. The

Card 1/2

certified parameters and characteristics of the latter are given in tables. It has been established that the FEU-16 is suitable for counting photons and has a threshold of response of 10^{-12} lumen. A sensitivity of $1.8 \cdot 10^{-14}$ lumen was attained with an exposure of 30 seconds when using a FEU-64 photomultiplier (in this case the counting rate of photons was 62 sec^{-1}); it was $5 \cdot 10^{-15}$ lumen in the case of a 10-minute exposure. It is shown that the light flux intensity in the range 10^{-10} - 10^{-14} lumen changes linearly as a function of the counting rate of photons. In the case of light fluxes greater than 10^{-10} lumen the linearity is disrupted as a result of the loss of part of the signals due to the presence of instrument dead time. Bibliography with 7 items. R. Salmanzade.

SUB CODE: OP, EC ENCL: 00

ROZHKOVA, L.M., kandidat meditsinskikh nauk

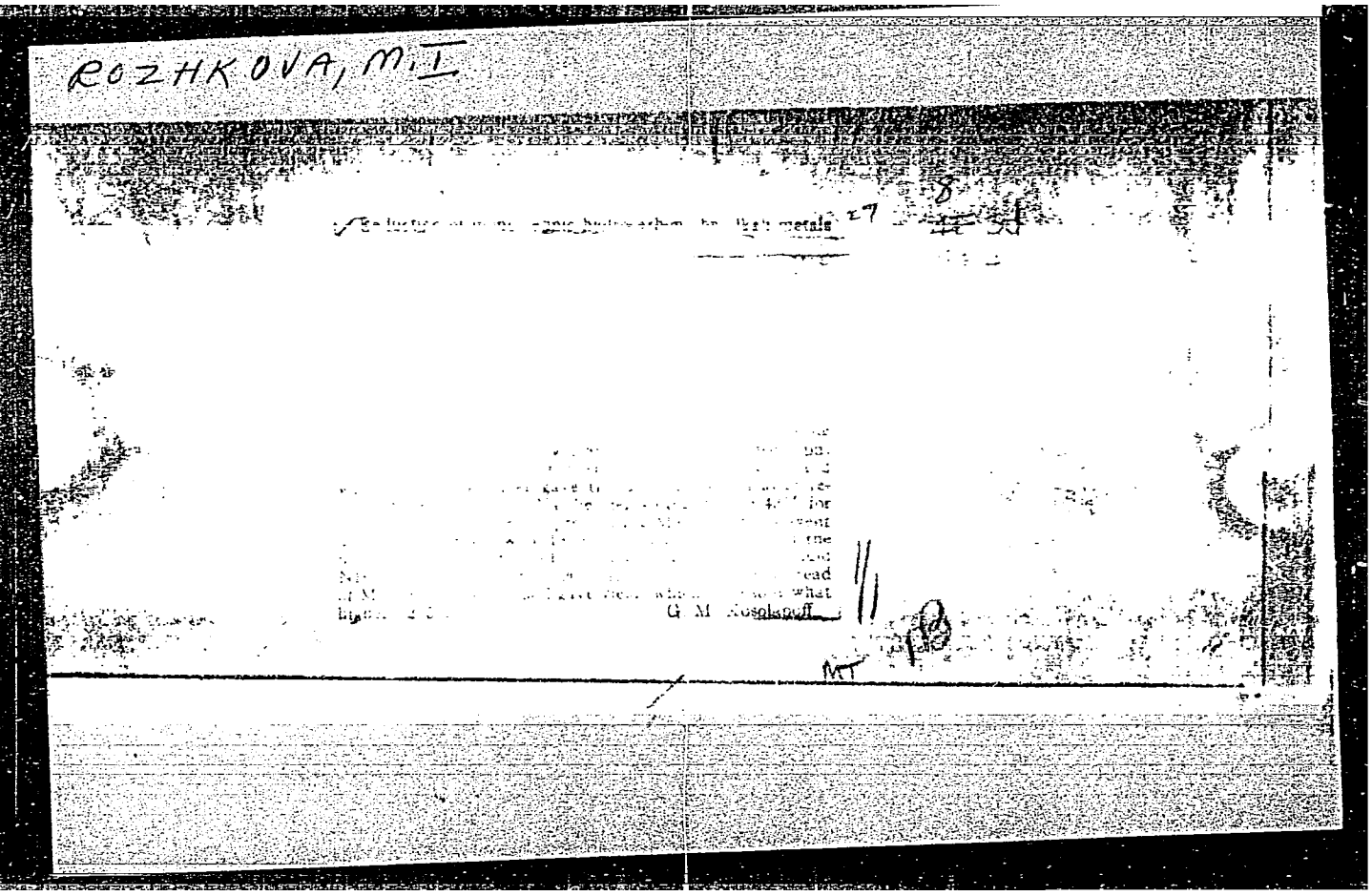
Characteristics of treating the open bite anomaly in adults. Stomatologiia no.1:53-55 Ja-F '55. (MIRA 8:5)

1. Iz kafedry ortopedicheskoy stomologii (zav. prof. I.S.Rubinov) Leningradskogo meditsinskogo stomatologicheskogo instituta (dir. prof. R.I.Gavrilov).

(MALOCCLUSION,
open bite, ther.)

ROZHKOVA, L.S., inzh.

"Final finishing of textiles" by V.Felix. Reviewed by L.S.Rozhkova. Tekst.prom. 23 no.4:87 Ap '63. (MIRA 16:4)
(Textile finishing)
(Felix, V.)



GONIKBERG, M.G.; GAVRILOVA, A.Ye.; STERLIGOV, O.D.; ROZHKOVA, M.I.

Thermal polymerization of pentenes at high pressures. Izv.AN SSSR. Otd.khim.nauk no.8:1458-1463 Ag '62. (MIRA 15:8)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR.
(Pentene) (Polymerization)

AUTHOR: Rozhkova, M. I. SOV/156-58-1-28/46

TITLE: On the Reduction of Monoolefinic Hydrocarbons by Hydrogen "in statu nascendi" (O vosstanovlenii monoolefinovykh uglevodorodov vodorodom "v moment vydeleniya")

PERIODICAL: Nauchnyye doklady vysshey shkoly, Khimiya i khimicheskaya tekhnologiya, 1958, Nr 1, pp. 117 - 121 (USSR)

ABSTRACT: Until recently the opinion prevailed that the hydrogen sources "in statu nascendi" are able to reduce only those double bonds $>C{=}{=}C<$ which are activated by a phenyl nucleus, by any electron-acceptor group or by a second multiple bond. An isolated double-bond in the olefines of the aliphatic and alicyclic series ought to be reducible only by catalytically excited hydrogen (Ref 1). However, within recent years, the cases of reduction of the isolated double bond $>C{=}{=}C<$ by hydrogen "in statu nascendi" (Refs 2 to 8) increased. It is not possible, however, due to current conceptions on the reduction by hydrogen "in statu nascendi" to explain the difference in activity of different sources of such hydrogen. The influence exercised by the structure of the initial olefine is of great importance. In the present re-

Card 1/4

port the author investigated this influence and moreover the influence exercised by the nature of the metal and the protolytical agent on the reaction referred to in the title in a medium of liquid ammonia. The mono-olefine of normal structure which were investigated are the following: Pentene-1, hexene-1, heptene-1, octene-1, nonene-1, decene-1, octene-2, and heptene-3. Na, K and Li were used as reducing metals. Methyl-ethyl- and tert.butyl-alcohol acted as proton donor. The method of reduction has already been described previously (Ref 16). Table 1 shows the results obtained by the reduction by Na in liquid ammonia of 8 monoolefine hydrocarbons in the presence of methanol. As results from this, the reduction depends considerably on the molecular weight of the olefine and on the position of the double bond. Pentene-1, hexene-1- and heptene-1 are rather easily (in a yield of approximately 40%) reduced. Octene-1 is reduced already more slowly (yield 20%), nonene-1, and decene-1 are reduced with much more difficulty (yields from 3 to 6%). Olefine with a double-bond (heptene-3, octene-2) removed from the end of the chain cannot be reduced under the above conditions; only a secondary

reaction of the hydrogen-separation takes place. Amongst the metals, Na effects a much more rapid reduction than Li and K (Table 2). A too energetic separation of free hydrogen acts negatively on the results of reduction. From the results obtained the author draws the following conclusions: 1) The velocity of reduction is determined by the ratio of the velocities of two competing reactions: a) the affiliation of hydrogen to the double bond of olefine, and b) the separation of the free hydrogen. 2) The obtained results confirm the ion-scheme of the mechanism of reduction of the double bonds by hydrogen " in statu nascendi". There are 3 tables and 20 references.

ASSOCIATION: Kafedra khimii nefti Moskovskogo gosudarstvennogo universiteta im.M.V.Lomonosova (Chair of Petroleum Chemistry at the Moscow State University imeni M.V.Lomonosov)

SUBMITTED: September 30, 1957

On the Reduction of Monoolefinic Hydrocarbons by Hydrogen "in statu nascendi" SOV/156-58-1-28/46

Card 4/4

L 48555-65 EWT(d)/EWP(v)/EWP(k)/EWP(h)/EWP(l) Po-4/Pq-4/Pf-4/Pg-4/Pk-4/Pl-4

ACCESSION NR: AR5008036 IJP(c) BC UR/0124/65/000/001/A017/A018

SOURCE: Ref. zh. Mekhanika, Abs. 1A143

AUTHOR: Rozhkova, M. I.

TITLE: Plotting the stability range of an automatic control system within a triparametric space

CITED SOURCE: Volzhsk. matem. sb., vyp. 2, 1964, 251

TOPIC TAGS: automatic control system, asymptotic stability, stability range, control system stability

TRANSLATION: Necessary and adequate conditions of asymptotic stability of the equilibrium $x=y=0$ are formulated without the benefit of proof for the system

$$\dot{x} = x + ay$$
$$\dot{y} = bx + cy$$

where a, b, c, are parameters definable at error factors of $\pm\Delta_1$, $\pm\Delta_2$, $\pm\Delta_3$, respectively. All Δ_1 are assigned positive constants. Limits (safe and unsafe according to Bautin) are given for the stability region in the space described by parameters a, b and c. I. A. Litovchenko

SUB CODE: MA, IE ENCL: 00

Card 1/1

ROZHKOVA, M.I.

Reduction of monoolefinic hydrocarbons by hydrogen "at the instant of liberation." Nauch. dokl. vys. shkoly; khim. i khim. tekh. no.1: 117-121 '58. (MIRA 11:6)

1. Rekomendovana kafedroy khimii nefti Moskovskogo gosudarstvennogo universiteta im. M.V. Lomonosova.
(Olefins) (Reduction, Chemical)

Rozhkova, M. I.

Distr: 4E4j/4E3d/ 4E2c(j)

Reduction of monoolefinic hydrocarbons by sodium in liquid ammonia in the presence of tertiary butyl alcohol. M. I. Rozhkova, I. V. Costunkaya, and B. A. Kazanskii (M. V. Lomonosov State Univ., Moscow). *Doklady Akad. Nauk S.S.S.R.* 118, 299–301(1958); cf. *C.A.* 52, 233i.—Reduction of 1-alkenes with Na using 0.2 g. atom Na and 0.26 mole *tert*-BuOH/0.1 mole of olefin in 3 hrs. resulted in 20–30% evolution of free H with the following percentages of H being added to the double bond of indicated olefins: 1-pentene 72, 1-hexene 60, 1-heptene 52, 1-octene 32, 1-nonene 17, 1-decene 8. With 2-pentene the addn. was 12%. 2- and 3-hexenes gave 11%, 3-heptene gave 1% and 2-octene gave 6%, with 25–40% free H being evolved. G. M. K.

Optical study of structure of the lower polymers of isobutylene. M. I. Batuev, A. P. Meshcheryakov, and A. D. Matveeva. *Izvest. Akad. Nauk S.S.S.R., Otdel. Khim. Nauk* 1958, 75–84.—Examn. of Raman spectra of lower polymers of isobutylene indicates that the previous chem. detn. of their structures is correct; the predominant species are $Me_3CCH_2CMe{:}CH_2$, $(Me_3CCH_2)_2C{:}CH_2$, $Me_3CCH{:}CMeCH_2CMe_3$, and $Me_3CCH_2CMe_2CH_2C(:CH_2)CH_2CMe_3$. Beginning with the trimer these are inactive in further polymerization. The active forms that participate in polymerization are not accumulated in the process of chem. polymerization of the olefin. The spectral doublet (1640 and 1654 cm.$^{-1}$) is caused by isomer mixt. G. M. Kosolapoff.

Rozhkova, M. I.

20-2-26/60

AUTHORS: Rozhkova, M. I., Gostunskaya, I. V., Kazanskiy, B. A., Academician

TITLE: Reduction of Mono-Olefins by Sodium in Liquid Ammonia in the Presence of Tertiary Butyl Alcohol (Vosstanovleniye monoolefinovykh uglevodorodov natriyem v zhidkom ammiake v prisutstvii tretichno-butilovogo spirta)

PERIODICAL: Doklady AN SSSR, 1958, Vol. 118, Nr 2, pp. 299 - 301 (USSR)

ABSTRACT: The reduction of the isolated carbon-carbon double bonds by alkaline metals in liquid ammonia apparently takes place according to an ionic scheme:

$$>C{=}C< \; + 2\bar{e} \longrightarrow >C\bar{e} - C\bar{e}< \qquad (a)$$

$$>C\bar{e} - C\bar{e}< \; 2H^{+} \longrightarrow >CH - CH< \qquad (b)$$

$$2\bar{e} + 2H^{+} \longrightarrow H_2 \qquad (v)$$

The total speed of the reduction reaction is determined by the relation of the speeds of two concurrent reactions: the addition reaction of hydrogen to the double bond of the olefin /(a) and (b)/ and the separation reaction of the free hydrogen (v). These speeds are on their part dependent on the structure of the olefin, the nature of the metal and on the acidity of the protolytic agent. In

Card 1/3

Reduction of Mono-Olefins by Sodium in Liquid Ammonia in the Presence of Tertiary Butyl Alcohol

an earlier paper by the authors (reference 1) it was stated that α-monoolefins with a double bond more distant from the chain-end cannot be reduced by Na, K and Li in liquid ammonia in the presence of methyl- and ethyl-alcohol. The action of the two electron-giving alkyl groups at the double bond apparently renders the formation of the carbanion difficult. In other words the speed of reaction (a) is thereby reduced. Consequently the relative speed of the side-reaction (v) increases. It was therefore interesting to reduce monoolefins with different positions of the double bond in the presence of a weaker proton-source than methyl- and ethyl-alcohols. Thereby the speed of the side-reaction was to be reduced. As such a weak protolyte they selected tertiary butyl alcohol whose acidity (according to reference 2) amounts to 1/10 of that of ethyl alcohol. Sodium served as reducing metal. The following normally constructed monoolefins were subjected to the reduction: pentene-1, hexene-1, heptene-1, octene-1, nonene-1, decene-1, pentene-2, a mixture of hexene-2 and hexene-3, heptene-3 and finally octene-2. Most of these α-monoolefins may be more rapidly reduced in liquid ammonia in the presence of tertiary butyl alcohol than with the use of methyl- or ethyl-alcohol (table 1). β- and γ-monoolefins may under the same conditions only be reduced to a very limited extent, but the reaction is accelerated by certain modifications

Reduction of Mono-Olefins by Sodium in Liquid Ammonia in the Presence of Tertiary Butyl Alcohol

of the method. Thus even the reduction of so reduction-inert hydrocarbons as the last-mentioned ones can be obtained by slowing down the formation of free hydrogen due to the use of a weaker protolytic agent. The position of the double bond in the chain of β- and γ-olefins as well as the differences of their molecular weight hardly exert any influence upon the speed of the reduction. Thus this position exerts little influence upon the results of the reduction. An experimental part with the usual data is given. There are 3 tables, and 3 references, 1 of which is Slavic.

ASSOCIATION: State University imeni M. V. Lomonosov, Moscow
(Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova)

SUBMITTED: July 17, 1957

AVAILABLE: Library of Congress

ROZHKOVA, M.I

Distr: 4E4j/4E2c(4j)/4E3d

Oxidation of hydrocarbons by oxygen. Oxidation of dicyclohexylmethane. M. P. Evstigneev, P. P. Borisov, and M. I. Rozhkova. *Vestnik Moskov. Univ. 12, Ser. Mat., Mekh., Astron., Fiz., Khim.* No. 3, 175-80(1957).—Oxidation of dicyclohexylmethane at 175° 3 hrs. produced 7-cyclohexyl-5-oxoenanthic, cyclohexylcarboxylic, adipic, glutaric, oxalic, and acetic acids and CO_2. V. S. Mihajlov

2 may

STERLIGOV, O.D.; ROZHKOVA, M.I.

Continuous isomerization of 2-methyl-2-butene and 2-methyl-1-butene in to 3-methyl-1-butene. Neftekhimiia 2 no.3:288-290 My-Je '62. (MIRA 15:8)

1. Institut organicheskoy khimii AN SSSR imeni Zelinskogo.
(Butene) (Isomerization)

ROZHKOVA, M.I.

USSR/Physical Chemistry - Kinetics, Combustion, Explosions, Topochemistry, Catalysis. B-9

Abs Jour: Referat. Zhurnal Khimiya, No 3, 1958, 7207.

Author : I.V.Gostunskaya, M.I. Rozhkova, B.A. Kazanskiy.
Inst : Academy of Sciences of USSR.
Title : Reduction of Monoolefin Hydrocarbons by Alkali Metals in Liquid Ammonia Medium.

Orig Pub; Dokl. AN SSSR, 1957, 114, No 3, 545-548.

Abstract: The dependence of the reduction rate of pentene-1, hexene-1, heptene-1, octene-1 nonene-1, decene-1, octene-2 and heptene-3 on the olefin nature and structure and the metal nature was investigated in the medium of liquid NH_3 in presence of CH_3OH and C_2H_5OH. The yield of saturated hydrocarbons drops with the rise of the olefin molecular weight. β and γ-olefins are not reduced under these conditions. The comparative metal activity

Card : 1/2 -10-

20-114-3-26/60

AUTHORS: Gostunskaya, I. V., Rozhkova, M. I., Kazanskiy, B. A., Member of the AN USSR

TITLE: The Reduction of Monolefines by Alkali Metals in Liquid Ammonia (Vosstanovleniye monoolefinovykh uglevodorodov shchelochnymi metallami v srede zhidkogo ammiaka)

PERIODICAL: Doklady Akademii Nauk SSSR, 1957, Vol. 114, Nr 3, pp. 545-548 (USSR)

ABSTRACT: Until recently hydrogen "in statu nascendi" was said to be able to reduce such double compounds, as >C=C<, which are conjugated either with other double compounds or with an aromatic nucleus. During recent years several examples of the reduction of olefine compounds by so-called hydrogen in statu nascendi were proved. Kraus and later Burton and Ingold as well as Birch suggested considering the incidental reaction of hydrogen with a double compound (on the occasion of the influence of sodium dissolved in liquid ammonia) as an ion--reaction. Together with the reduction also a side reaction of hydrogen precipitation may occur. In the present work the influence of the characteristic and the structure of the olefine, the metal- and alcohol characteristic on the velocity

Card 1/4

The Reduction of Monolefines by Alkali Metals in Liquid Ammonia

of the reduction-reaction of the aliphatic monolefines in liquid ammonia were studied. Experimental material was normally built:pentene-1, hexene-1, octene-1, nonene-1, decene-1, octene-2 and heptene-3. Na, Li and K were used as reduction metals. Methanol and ethanol were added as proton suppliers. In the presence of methanol the reaction was relatively easy and showed 40 % production. Pentene-1, hexene-1 and heptene-1 were more quickly reduced. Octene-1 was reduced more slowly and produced 20 %. It was far more difficult with nonene-1 and decene-1 where 3 - 6 % were produced. Olefines with a double compound distant from the end of the chain (heptene-3 and octene-2) can not be reduced at all. An increase of the concentration of methanol leads to an increased precipitation of free hydrogen and to a decrease of the production of saturated olefine. If methanol is replaced by the less acidous ethanol the reduction occurs more quickly. Nonene-1 and decene-1 are reduced to 20 and 8 % respectively under these conditions. If K or Li with methanol are used as reductors the olefines mentioned can be reduced more slowly than with the use of Na. Their relative activity in the reduction-reaction does, however, not correspond with their position in the series in liquid ammonia. This series would be Na, K, Li.

20-114-3-26/60

The Reduction of Monolefines by Alkali Metals in Liquid Ammonia

The greater hydrogen precipitation by K and Li should reduce the velocity of reduction of the olefines investigated, as this velocity is lower than the velocity of the competing precipitation reaction of free hydrogen. The experimental part with the constants, production and production methods of the substances investigated follows.

Final conclusions: 1) In the case of a reduction of olefines by alkaline metals in liquid ammonia with the addition of alcohol the production of saturated olefines decreases with increasing molecular weight of the olefine. 2) Olefines with a β- and γ-position of the double compound can not be reduced under given experimental conditions. 3) Sodium is the most active of all alkaline metals used for reduction (Li,Na and K). 4) The replacement of methanol by the less acidous ethanol increases the production of saturated olefines in the reduction of olefines of a composition C_5-C_{10}. There are 4 tables and 16 references, 5 of which are Slavic.

ASSOCIATION: Moscow State University imeni M. V. Lomonosov
(Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova)

Card 3/4

20-114-3-26/60

The Reduction of Monolefines by Alkali Metals in Liquid Ammonia

SUBMITTED: January 24, 1957

Card 4/4

ROZHKOVA, M. I.: Master Chem Sci (diss) -- "The reduction of the monoolefin hydrocarbons with solutions of alkali metals in liquid ammonia in the presence of alcohols". Moscow, 1958. 14 pp (Moscow Order of Lenin and Order of Labor Red Banner State U im M. V. Lomonosov, Chem Faculty), 100 copies (KL, No 6, 1959, 126)

GOSTUNSKAYA, I.V.; ROZHKOVA, M.I.; KAZANSKIY, B.A., akademik.

Reduction of monoolefines by alkali metals in liquid ammonia. Dokl. AN SSSR 114 no.3:545-548 My '57. (MLRA 10:6)

1. Moskovskiy gosudarstvennyy universitet im. M.V. Lomonosova.
(Olefins) (Reduction, Chemical)

L 20123-65 EWT(1) IJP(c)

ACCESSION NR: AR4045228 S/0124/64/000/007/A014/A014

SOURCE: Ref. zh. Mekhanika, Abs. 7A104

AUTHOR: Rozhkova, M. I.

TITLE: Defining the stability region of a system's equilibrium within the space of three parameters

CITED SOURCE: Uch. zap. Ryazansk. gos. ped. in-t, v. 35, 1963, 273-274

TOPIC TAGS: balanced state stability, triparametric space problem, peripheral stability area

TRANSLATION: The article considers the problem of defining the stability region of equilibrium for a system of one particular type within the space of three parameters. It is demonstrated that the stability condition for the discussed system is satisfied if a point within the parametric space pertains to one of the regions identified in the article. An analysis is made of the system's behavior in peripheral areas of the stability region. V. I. Toloknov.

SUB CODE: ME ENCL: 00

Card 1/1

ROZHKOVA, Mariya Konstaninovna; ZELKIN, I.I., red. izd-va;
YEGOROVA, N.F., tekhn. red.

[Economic relations between Russia and Central Asia in 1840 - 1860] Ekonomicheskie sviazi Rossii so Srednei Aziei, 40-60-e gody XIX veka. Moskva, Izd-vo Akad. nauk SSSR, 1963. 236 p.
(MIRA 16:7)

(Russia--Commerce--Asia, Central)
(Asia, Central--Commerce--Russia)

ROZHKOVA, M.S.

Changes in the oxidation-reduction processes in recurrent rheumatic endocarditis. Sbor.nauch.trud.TashGMI 22:44-50 '62.

(MIRA 18:10)

1. Kafedra fakul'tetskoy terapii sanitarno-gigiyenicheskogo i pediatricheskogo fakul'tetov (zav. kafedroy - prof. A.S.Melik-Karamyan) Tashkentskogo gosudarstvennogo meditsinskogo instituta.

ROZHKOVA, M.S.

Liver function in suppurative processes of the lungs. Klin. med., Moskva 30 no. 11:89 Nov 1952. (CIML 23:5)

1. Docent. 2. Of the Faculty Therapeutic Clinic (Head of Staff -- Prof. A. S. Melik-Karamyan) of the Pediatric and Sanitary Hygienic Faculty of Tashkent Medical Institute imeni V. M. Molotov.

ROZHKOVA, M.S.

USSR.

Chloride metabolism during severe mercuric chloride and acid poisonings. M. S. Rozhkova. *Doklady Akad. Nauk Uzbek. S.S.R.* 1953, No. 1, 35-8; *Referat. Zhur., Khim.* 1954, No. 22114.—The amt. of Cl^- was detd. in blood, tissue fluid, and in urine of 12 healthy men and of 26 patients poisoned by $HgCl_2$, vinegar, or by HCl. In the case of a moderate $HgCl_2$ poisoning the amt. of NaCl excreted with the urine decreased (from 4 to 0.9 g./day together with a decrease of diuresis to the level of 600-225 ml.), that of Cl^- in the tissue fluid also decreased, and an overall shift of the physiol. reaction to the side of the acidosis was observed. In the case of a severe $HgCl_2$ poisoning the amt. of Cl^- decreased sharply in blood (187-234 mg. % as compared with 480-585 mg. % of the normal), and in tissue fluid (99 mg. % against 503-580 mg. % of the normal), accompanied by decreased excretion of Cl^- in urine and by a strong acidosis. In the case of the vinegar poisoning were observed a low concn. of Cl^- in tissue fluid, decreased excretion of Cl^- with urine, and a shift of the body reaction to the side of acidosis. In the case of HCl poisoning only a slight decrease of the amts. of Cl^- in the blood, tissue fluid, and urine was noticed. To compensate the Cl^- deficit during the $HgCl_2$ and the acid poisonings a NaCl cure is suggested.

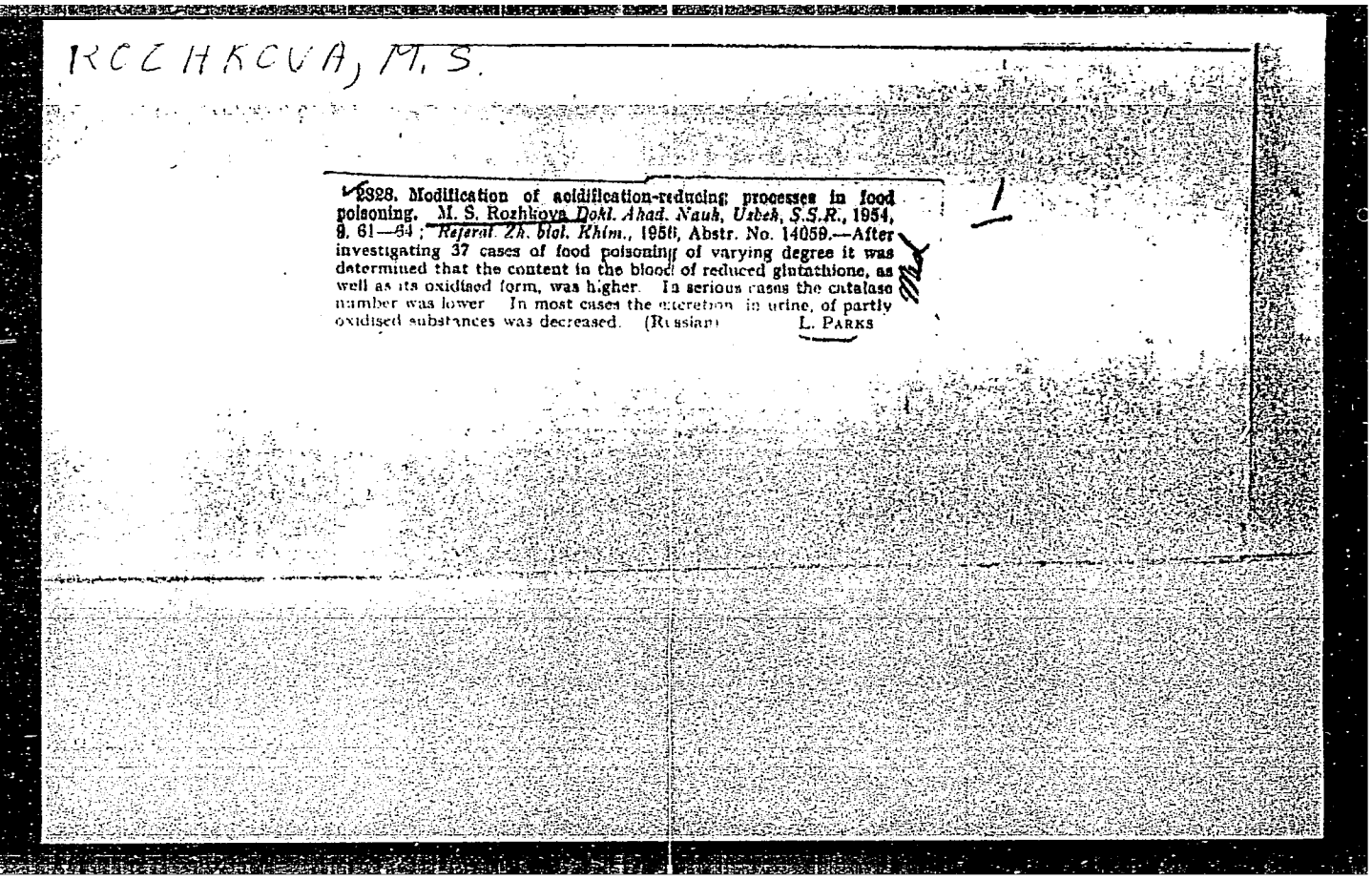
E. Wierbicki

ROZHKOVA M.

Functional liver pathology in toxic food infection. M. S. Rozhkova. Za Sotsial. Zdravookhranenie Uzbekistana 1955, No. 2, 16–20; Referat. Zhur. Khim., Biol. Khim. 1955, No. 2818.—The antitoxic function of the liver is profoundly disturbed in toxic food infection. There is a hypoglycemia, hypoprothrombinemia, and a blood cholesterol and urea increase. The administration of large quantities of glucose and vitamin K to patients is recommended.

B. S. Levine

MD



ROZHKOVA, M. S.

2328. Modification of acidification-reducing processes in food poisoning. M. S. Rozhkova *Dokl. Akad. Nauk, Uzbek. S.S.R.*, 1954, 9, 61—64; *Referat. Zh. biol. Khim.*, 1956, Abstr. No. 14059.—After investigating 37 cases of food poisoning of varying degree it was determined that the content in the blood of reduced glutathione, as well as its oxidised form, was higher. In serious cases the catalase number was lower. In most cases the excretion in urine, of partly oxidised substances was decreased. (Russian) L. PARKS

ROZHKOVA, M. S.

"Modifications of the Functions of the Liver in Acute Intoxication With Carbon Monoxide," by M. S. Rozhkova, Za Sots. Zdravookhr. Uzbekistana, 1955, No 3, pp 19-23, (from Referativnyy Zhurnal -- Biologiya, Moscow, No 18, 25 Sep 56, Abstract No 79,511)

"Observations of 36 persons afflicted with acute carbon monoxide intoxication revealed a deep disturbance of the antitoxic functions of the liver, hyperglycemia with glucosuria, a retarded diminution of the sugar curve, hyperthrombinemia, a rise in the level of cholesterine and urine in the blood, and considerable disturbance of the water-salt metabolism. The restoration of the functions of the liver lagged considerably behind the indicators of clinical recovery. Insulin-glucose therapy and the administration of vitamins K, C, and B_1 are advisable, in the author's opinion."

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